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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,693	06/04/2004	Lloyd Ballard Mauldin		2692

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EXAMINER

BOYKIN, TERRESSA M

ART UNIT PAPER NUMBER

1711

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/708,693

Applicant(s)

MAULDIN ET AL.

Examiner

Terressa M. Boykin

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 24 is/are rejected.
- 7) ☒ Claim(s) 6-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-18-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 4, 5, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5889142 see cols. 1-4, Examples and Tables 1-5.

US 5889142 discloses a process for selectively separating polyamides from multi-component waste materials including the steps of subjecting the multi-component mix to a specific mixture of caprolactam and water at a preselected temperature range below the degradation temperature of the polymer to be recovered, separating the formed polyamide solution, and recovering the desired polyamide. The recovered polyamide may be used in molding applications and in fiber such as carpet fiber. More particularly, the reference discloses a process for recovering nylon 6 and nylon 66 from a multi-component material, specifically post consumer carpet, including the steps of: subjecting the carpet mix, in its entirety or in shredded, chopped or crushed form to a specific mixture of a caprolactam/water composition at an elevated temperature range (about 120.degree. to 180.degree. C.) to selectively dissolve the Nylon 6 face fiber. The nylon 6 solution is then separated from the insoluble residue including backing materials, polypropylene and other fiber.

Nylon 66 may be recovered from the insoluble residue by contacting the insoluble residue with a caprolactam/water composition at a temperature ranging from 180 C. to about 240.degree. C. The nylon 66 is dissolved and may then be isolated. The reference discloses the polyethylene terephthalate of claims Inventive Example 11. Nylon 6, nylon 66, polyethylene terephthalate, and polypropylene were subjected to a 5% and 10% water/caprolactam at 160 C. The polymer content for all runs was held constant at 15 wt. %. The mixtures were put in a glass pressure reaction apparatus (rating of ca. 50 psi) and placed in a constant temperature bath at 160 C. After thirty minutes they were withdrawn and visually inspected to determine whether the polymer had dissolved. The results are tabulated in Table 4. Note also that Table 5 demonstrates that the composition dissolved in the higher temperature solution.

The reference discloses an alternative approach to the recovery of polyamides from waste is by the extraction of the polymers using a solvent, and the recovery of the polymer either by *cooling* the solution to cause precipitation of the polymer, or adding a non-solvent to precipitate the polymer, or removal of solvent by volatilization. The choice of a solvent system is critical to prevent degradation of the polymer, prevent extraction of undesirable materials, monitor the corrositivity of the solvent, control cost and monitor the environmental factors.

The reference discloses a method for separating a polyolefine from a polyamide. Thus in view of the above, there appears to be no significant difference between the reference and that which is claimed by applicant(s). Any differences not specifically

mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

Objected Claims

Claims 6-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Correspondence

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is (571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

tmb

A handwritten signature in black ink, appearing to read "Terressa Boykin". The signature is fluid and cursive, with the first name "Terressa" written in a larger, more prominent script than the last name "Boykin".

Examiner Terressa Boykin

Primary Examiner

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